



pharobit™

LED Flashlight DVR

Model GCF-200

User's Manual

Please read this manual prior to operation.
The appearance and function of this
product may be changed without notice

Memo

LED

Flashlight DVR

User's Manual

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Preparations

- ◆ Prior to operation, please read this manual carefully.
- ◆ Check every items in the carrying case.
- ◆ Copy PC Viewer program in Micro SD Card to your PC or Laptop prior to operation.

Package



Body



Battery Case



Battery Pack

Cigar Jack



AC Adapter



Battery Cradle

LED Flashlight DVR User's Manual



USB Cable



HDMI Cable



Micro SD Card Reader
(8GB Inside)



Shoulder Strap



Hand Strap

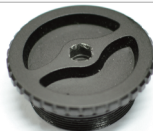


Rubber cap for head
(Installed on the body)

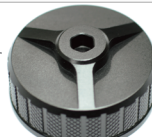


Pouch

Waterproof Cap
for Interface



Waterproof Cap for
functional key part



Waterproof
ring



Tweezers



User's Manual

Before Operation

Directions

Please keep the followings to avoid potentially hazardous or damage to the products from mishandled

1. Use supplied authorized battery charger to recharge batteries.
2. Confirm battery polarity when inserting battery case into battery charger.
3. Rotate the battery cap open on the body and insert a battery case with correct polarity direction.
4. The LED on the battery charger changes from red to green color when charging is done completely.
5. Do not see the lights directly from the device, it may damage your eye sight.
6. GPS activation takes a little time after power on for searching satellites.
GPS information could not be stored during this searching time.
7. Receive sensitivity of GPS could be different from environment, weather and other factors.
GPS inaccessible area : Inside buildings, Underground parking lots, Complex skyscraper area, Nasty weather etc.,
8. Once waterproof cap for functional key part is installed, it is not available to receive GPS signal.
9. E-Compass may have deviation in the environment of magnetic field.
10. Map screen in the PC Viewer is not available without internet access.
11. Rotate the 3 caps (Battery cap, waterproof cap of interface & functional key) to close it completely while using in underwater. (Waterproof O-ring is consumable so it is needed to be changed periodically.)
12. It may takes a little time to turn on the LCD display.
13. LCD display color could be changed in the low temperature.
(But it is not failure, it comes back soon in the normal temperature)
14. Do not shock the front lens and LCD display part.
15. Use the tweezers when change waterproof ring or pull out Micro SD card.

Parts name

1. Camera
2. IR LED (6pcs)
3. Hi Powered LED
4. Head
5. LCD Display
6. DVR Rotary Switch
7. Function Keys / GPS Receiver
8. LED Rotary Switch
9. Battery Cap
10. Slot for Hand Strap
11. Interface Out
(HDMI / USB / Micro SD Card)



Before Operation

Battery Charging

Put the battery pack into the battery case as shown in illustration.

Caution

Use only authorized battery supplied what has 18650 PCM safety circuit inside.

Before insert the battery, confirm the battery polarity.

To charge batteries, put the battery case into battery charger as shown in illustration.

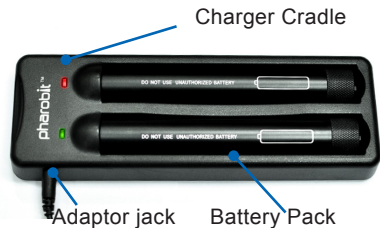
Red LED : Under charging

Green LED : Charged completely

Red LED blink : Change battery (Normally life time of battery pack is more than 500 times).

How to use and charge Lithium – ion Batteries

- 1, Use 2 battery packs in turn.
2. Do not leave fully charged battery (Green LED) in the charger more than 1 hour.
3. To prolong the battery life time, let the battery be full-discharging and full-charging once a half year.
4. It takes 5~6 hours to fully charge up a fully discharged battery.
5. Overcharging, over-discharging and charging below 0°C will shorten the battery life time and not recommended.



Check point for Waterproof function

Check carefully followings when use waterproof function.

1. Check the waterproof ring(2pcs) completely which are installed on functional key part(No.1), If it is damaged, replace waterproof ring(Key Control Section O-Ring) supplied and spray lubricant on the O-ring.
2. Check the waterproof ring(2pcs) completely which are installed on Interface part(No.2), If it is damaged, replace waterproof ring(Key Control Section O-Ring) supplied and spray lubricant on the O-ring.
3. Check the waterproof ring(2pcs) completely which are installed on battery cap, If it is damaged, replace waterproof ring(Key Control Section O-Ring) supplied and spray lubricant on the O-ring.
4. Each waterproof cap should be closed completely.
5. Insufficient lubricant may cause of damage to waterproof ring.

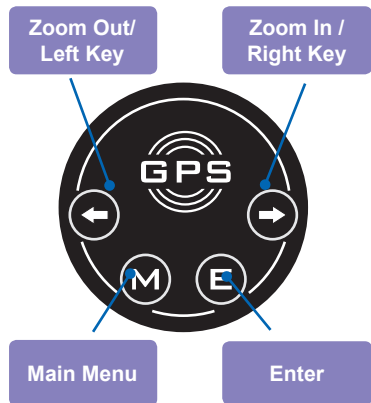
[Caution]

1. Spray lubricant on every waterproof ring before using under the water.
(Insufficient lubricant may cause of damage to waterproof ring.)
2. Once waterproof cap for interface is installed, sound recording is not available because mike hole is located in interface part.
3. Once waterproof cap for functional key part is installed, GPS receiving is not available because GPS antenna is located in interface part.
4. Clean with water and dry up completely after using in the marine.
(Use rubber cap for interface and functional key part when normal operation)
5. To keep the waterproof performance completely, replace waterproof ring one or two times per year.
(Four or five times per year when frequently used)
6. Be careful not to be tapped foreign substances around waterproof ring.
7. Do not use more than 1 hour consecutively in the marine.

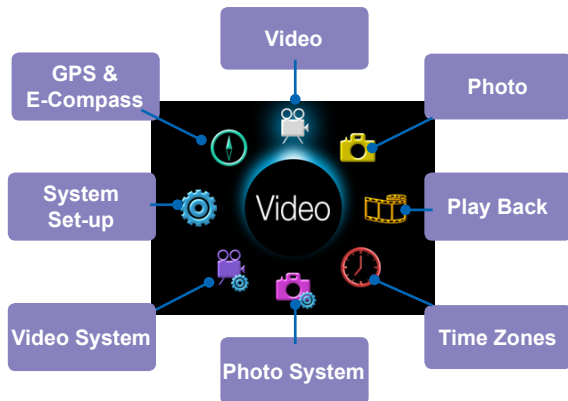


Basic Functions

Function Keys/ GPS Receiver



Main Menu



Operation

Flashlights

1. Flashlight is activated by LED rotary switch.

Each function is executed when icon on the rotary switch is placed on arrow marking.

Icons



SOS mode



100% Brightness



Flashlight OFF



50% Brightness

Operation

Video

1. Activate Power On, Power Off and DVR recording with rotary switch .
Each function is executed when icon on the rotary switch is placed on arrow marking.

Icons



Night Vision
Video Recording



Night Vision
Power On



Power Off



Normal Mode
Power On



Normal Mode
Video Recording

[How to change night vision mode and normal mode]

Night vision mode is activated when the rotary switch is set to "ON" icon on the right side of the "OFF" icon.
To activate Normal mode, rotate the switch to the opposite direction, set the other "ON" icon on the arrow marking.

IR LED is turned on automatically in the Night vision mode.

Keep the flashlight OFF when IR night vision ON

In Night vision mode, it is available to take a photo or record video up to max 15M distance under darkness (0.001 Lux). It shows light green color screen.

Video

DVR on

1. Set the rotary switch to proper "ON" position (Normal / Night vision).

Stand by



GPS is under connection



Connected (GPS information is to be stored when satellite is connected only)

Video Recording Mode

Available recording time



Battery status

Video Resolution

Recording

2. Video recording is started when rotary switch is placed on recording mode. (Recording is stopped and its file is stored in the micro SD card inside once return Power On mode back.)

Zoom In and Out functions are available using left & right direction keys.

[Remarks]

Zoom In & Out function is only available on the below level of Full HD mode (1920*1080).

GPS function is not available when waterproof cap for functional key is installed.

DVR off

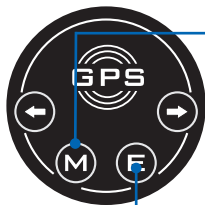
3. Set the rotary switch to OFF mode.

Operation

Photo

DVR on

1. Set the rotary switch to proper "ON" position (Normal / Night vision).



Select Menu

2. Press the "M" button to display main menu, select the photo icon using left & right direction keys. Then press "E" button to start photo mode.



Take a photo

3. Press "E" button to take a photo and it is stored automatically. Zoom In & Out is available using left & right direction keys.

GPS and Zoom In & Out functions are not available when waterproof cap for functional key is installed.

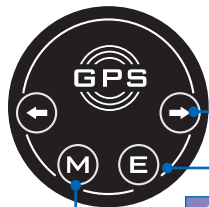
Play Back

DVR on

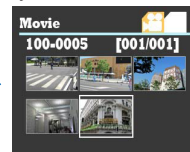
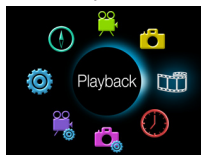
1. Set the rotary switch to any "ON" position.

Select Menu

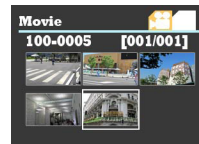
2. Press the "M" button to display main menu, select the play back icon using left & right direction keys. Then press "E" button to start play back mode.

File selecting
Play back

Return



3. Select video file mode or photo file mode using left & right direction keys and Press "E" button. Press "E" button again after selecting video or photo file. The file will be activated.



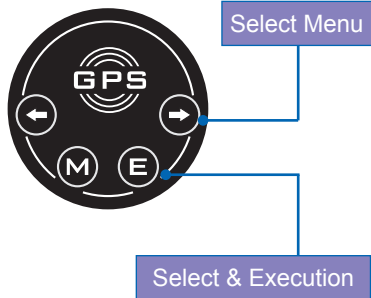
4. Press "M" button to return upside menu.

Operation

Time Zones

DVR on

1. Set the DVR ON mode and then press [M] button to enter the main MENU.



2. Select [Time Zone Setting] menu using left & right direction keys



3. Select the Time Zone needed using left & right direction keys and then press [E] button.

[How to set Time Zone]

In case of the eastern hemisphere : Set up with standard time

Ex : Korea is adapted on UTC +9, so its time zone is fixed with 0009

In case of the western hemisphere : Set up with 24 + standard time

Ex : Los Angeles is adapted on UTC -8, so its time zone is fixed with 0016

Set up Time Zones

Reference of time zone setting

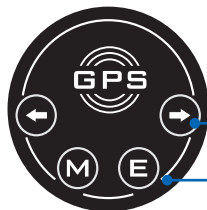
UTC + 14	Kiribati
UTC + 13	Tonga / Kiribati
UTC + 12	Nauru / New Zealand / Russia
UTC + 11	New Caledonia / Russia / Federated States of Micronesia/ Vanuatu / Solomon Islands
UTC + 10	Australia (EST) / Papua New Guinea/ Russia
UTC + 9	South Korea / Russia / Indonesia (EST) / Japan / North Korea
UTC + 8	China / Malaysia / Mongolia / Russia / Singapore / Australia (CST) / Indonesia (CST) / Philippines
UTC + 7	Laos / Russia / Vietnam / Indonesia (WST) / Cambodia / Thai
UTC + 6	Russia / Bangladesh / Bhutan / Sri Lanka / Kazakhstan(EST)
UTC + 5	Russia / Uzbekistan / Kazakhstan / Kyrgyzstan / Tajikistan / Turkmenistan/ Pakistan
UTC + 4	Russia / Oman / Kazakhstan (WST) / Armenia
UTC + 3	Georgia / Russia / Madagascar / Saudi Arabia / Somalia / Sudan /Yemen / Uganda / Iraq / Kenya / Kuwait / Tanzania
UTC + 2	Eastern Europe Standard / Greece / South Africa / Lebanon / Rwanda / Libya / Lithuania / Mozambique / Bulgaria / Ukraine / Israel / Egypt / Finland
UTC + 1	Central Europe Standard/ Nigeria /Norway/Netherlands / Denmark / Germany / Monaco / Sweden / Spain/ Albania / Austria / Italia / Central African republic/ France
UTC	Western European Standard/ Republic of Ghana/ Morocco / Sahara Occidental / Spain / UK(GMT) / Portugal
UTC - 1	Cape Verde / Portugal
UTC - 2	Brazil – Islands in Atlantic Ocean
UTC - 3	Brazil / Argentina
UTC - 4	USA (EDT)
UTC - 5	USA (EST) / Brazil / Ecuador / Jamaica / Canada (EST) / Peru
UTC - 6	USA (CST)
UTC - 7	USA (MST)
UTC - 8	Mexico / USA (PST) / Canada (PST)
UTC - 9	USA (AKST)
UTC - 10	USA (HST)
UTC - 11	Samoa

Operation

Photo System

DVR on

1. Set the rotary switch to proper "ON" position.



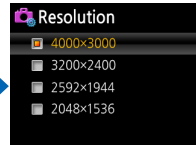
Select Menu

Select / Confirm

2. Press the "M" button to display main menu, select the Photo System icon using left & right direction keys. Then press "E" button to show Photo System status.



3. Select photo resolution using left & right direction keys, then press "E" button to confirm.



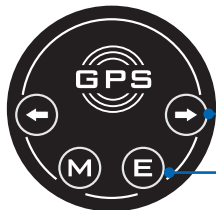
Video System

DVR on

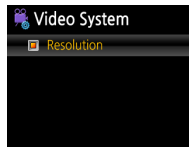
1. Set the rotary switch to proper "ON" position.

Select Menu

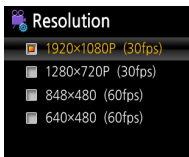
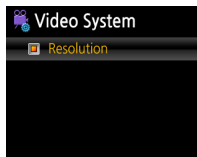
2. Press the "M" button to display main menu, select the Video System icon using left & right direction keys. Then press "E" button to show Video System status.



Select / Confirm



3. Select the resolution using left & right direction keys, then press "E" button to confirm.



Operation

System

DVR on

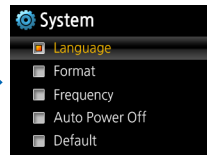
Select Menu



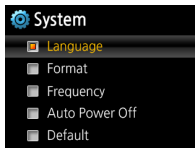
Select / Confirm

1. Set the rotary switch to proper "ON" position.

2. Press the "M" button to display main menu, select the System icon using left & right direction keys. Then press "E" button to show System status.



3. Select options using left & right direction keys, then press "E" button to show the setting. Press "E" button to return to upper menu after selection.



[※ Caution]

Whole file will be deleted once execute Format so download files to the PC before Format in the System.

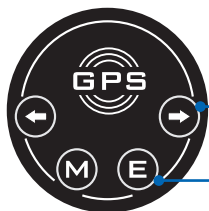
GPS / Compass

DVR on

1. Set the rotary switch to "ON" position.

Select Menu

2. Press the "M" button to display main menu, select the GPS Compass icon using left & right direction keys. Then press "E" button to show GPS Compass status.



Return



3. Press "M" button to return to main menu.

[Tip]

1. Real time GPS information is stored in the folder of [GPS INFO] in Micro SD card inside whenever entering into the GPS MENU from the main menu.
2. Time setting is updated automatically when GPS is available.

PC Viewer Instruction

1

Install PC Viewer

Confirm the Micro SD card and reader inside the carrying case as shown in illustration.
Connect Micro SD card reader to your PC or laptop and find PC viewer folder.
Copy the folder into your PC or laptop.

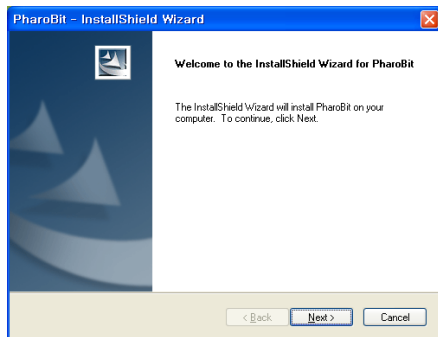


Open the PC Viewer folder and install this program clicking SETUP.EXE file.

Step 1

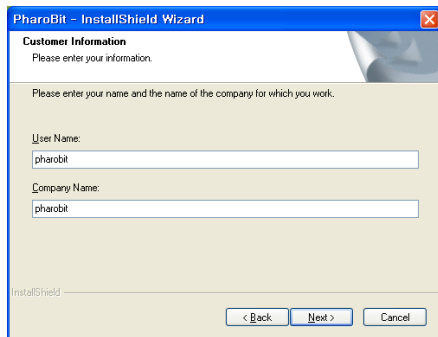
Run the SETUP.EXE file.

Step 2



Click [NEXT]

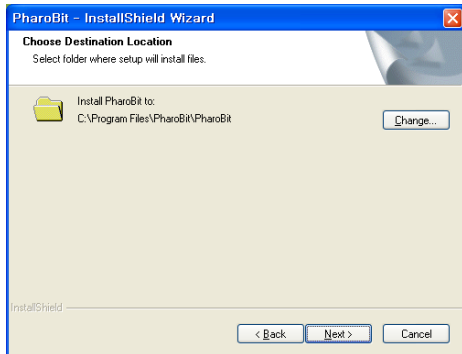
Step 3



Input user information and click [NEXT]

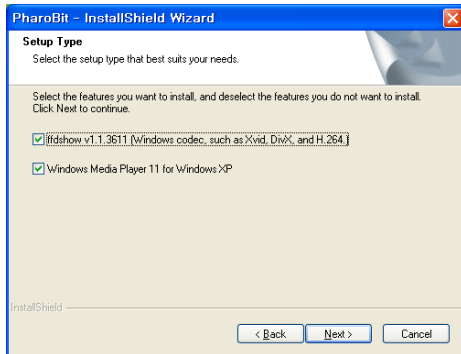
PC Viewer Instruction

Step 4



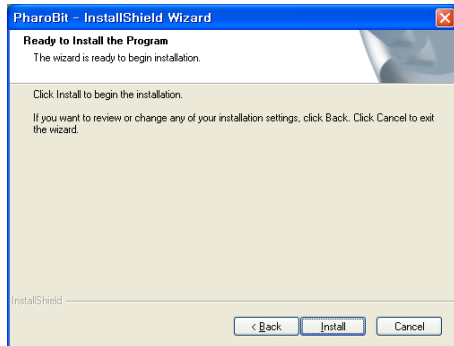
Select the folder where the program is to be installed and click [NEXT] If you do not select the folder, the program is to be installed in C:\Program files\Pharobit \Pharobit automatically.

Step 5



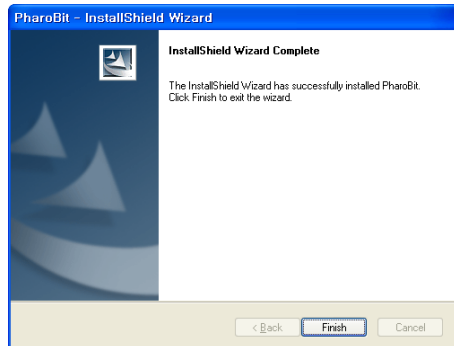
Mark “ffdshow” once you do not have MP4(H.264) codec in your PC . Mark “Window Media player 11” if you do not have it in your PC. This page is not shown in the higher O/S version than Windows XP.

Step 6



Click [Install]

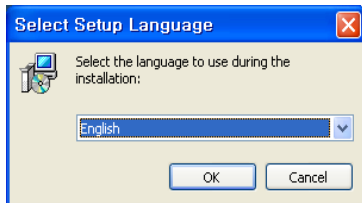
Step 7



Click [Finish] after installation

PC Viewer Instruction

Step 8



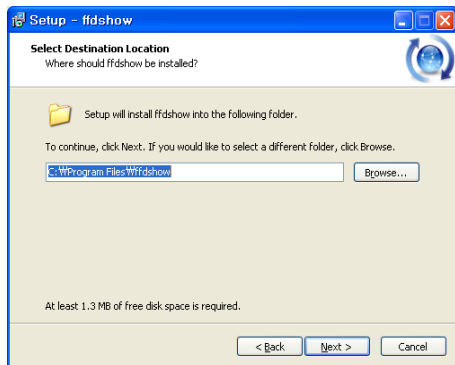
Select the language to install multi codec once you mark "ffdshow" in the step 5

Step 9



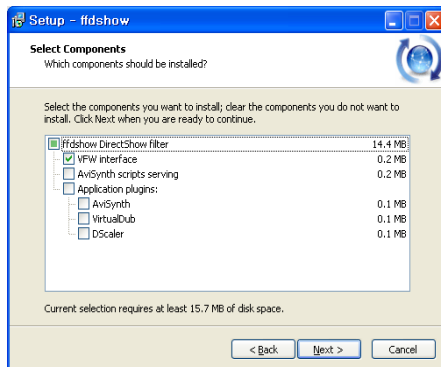
Click [NEXT] to install

Step 10



Select the folder to install codec. If you do not select the folder, the program is to be installed in C:\Program files\ffdshow automatically.

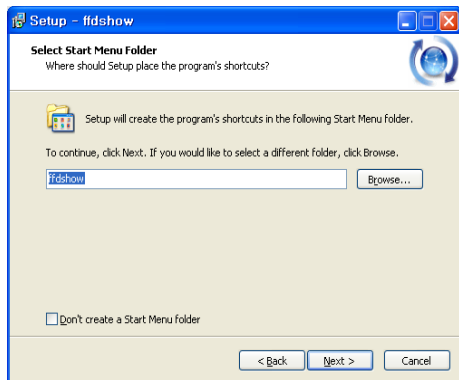
Step 11



Click [NEXT] to install

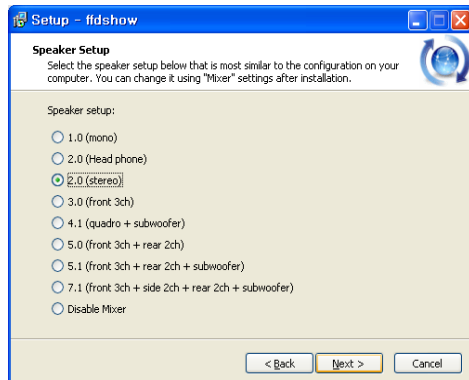
PC Viewer Instruction

Step 12

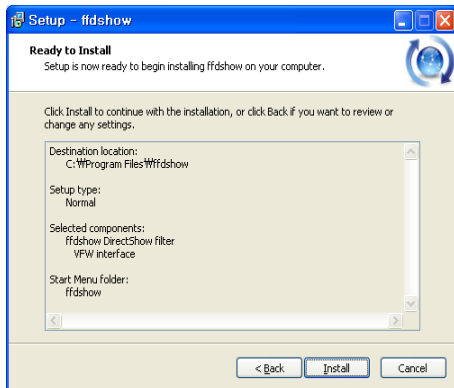


Click [NEXT] to install .

Step 13



Click [NEXT] to install

Step 14

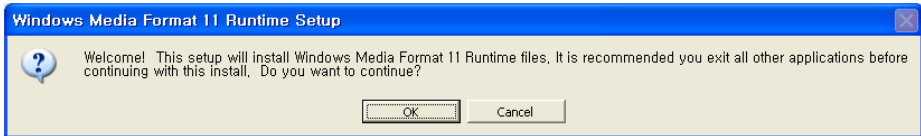
Click [Install]

Step 15

Click [Finish] after installation

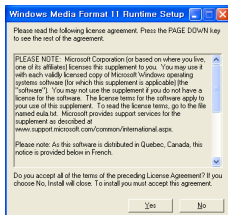
PC Viewer Instruction

Step 16



“Windows Media Player” install window is popping up once you mark “Windows Media Player” in the step 5. Click [Yes] to install.

Step 17



Click [Yes] once you agree the license

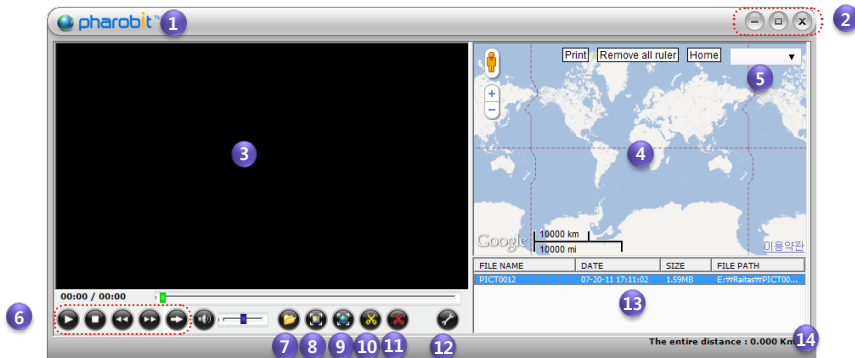
Step 18



Click [OK] to complete

2 PC Viewer display

Run the PC Viewer.

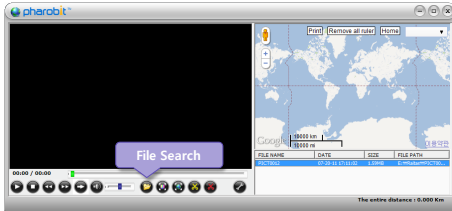


- | | | |
|-----------------------------------|-------------------------------|---------------------------------|
| 1. Pharobit LOGO | 6. Play, Stop, REW, FF, Mute, | 10. Video edition start button |
| 2. Minimize, Maximize, Close | Repeat control, Volume bar | 11. Video edition finish button |
| 3. Video screen | 7. File Search | 12. File manager |
| 4. Map screen | 8. Maximize Video Screen | 13. File list |
| 5. Map / satellite view selection | 9. Maximize Map Screen | 14. Total distance display |

PC Viewer Instruction

3 File Search

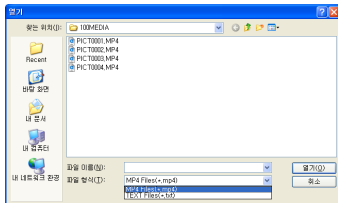
To play video file, click the file search icon and select a *.MP4 file in the browser.
To see GPS data on the map only, select a *.TXT file in the browser.



File path : SDCARD root\DCIM\100MEDIA

※ Caution

1. Video screen is not available when open TXT file.
2. Map Screen is not available if no TXT file exists with same file name to the selected MP4 file.
3. Map Screen is not supported without Internet access.



MP4 / TXT selection



Screen for Selecting TXT file

4 Global position information

Red balloon pins pop up during video playing which have GPS information. Global position, time, path and distances are displayed once a red balloon pin is clicked.



PC Viewer Instruction

5

User path creation



1. Right click on a red balloon pin, where the origin, then “add ruler” menu pops up.
2. Click the “add ruler” menu and a yellow point marker is created.
3. Drag the marker to an arbitrary user point. Distance from the origin to the user point is displayed automatically .

It is possible to make a new user point from the user point, then it displays total distance from origin red balloon pin through the user points. This function is useful to measure distance through arbitrary path.

Start point of recording : Blue balloon pin

Path Tracing : Red balloon pin

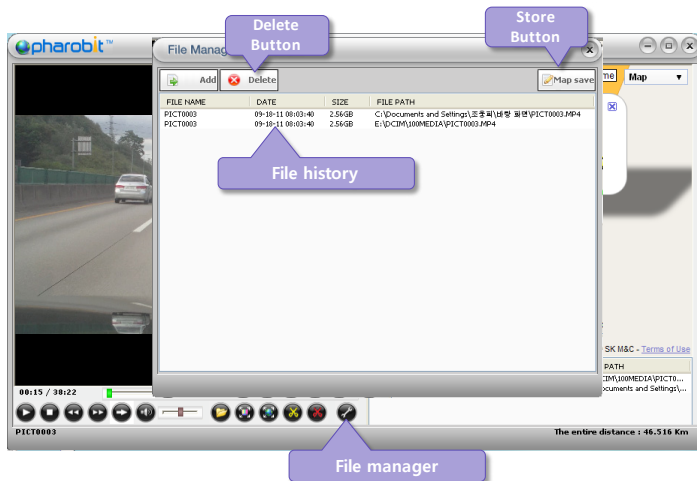
Finish point of recording : Green balloon pin

Created random post : Yellow balloon pin



6 Store user path

Store user path by clicking “File manager” button (No.12) followed by “Map save” button.



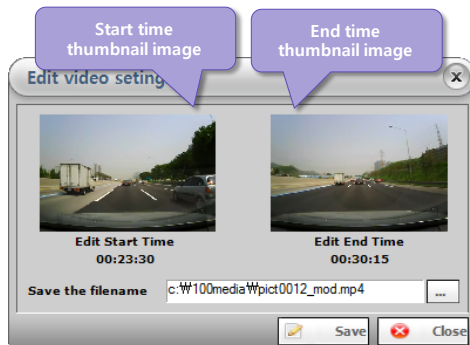
PC Viewer Instruction

7

Edit Video

This function allow users to create new video files from a video file by specifying video start and end points.

1. Move the time slide bar to the time where the new video file supposed to be started, or play the file until the time.
2. Click video edition start button (10), then a window pops up with the thumbnail image of the start time.
3. Play the file again, or move the slide bar until the end time and then click video edition finish button (11). The thumbnail image of the end time is displayed on the blank on the right side of the start time thumbnail image.
4. Create a new video file by clicking save button.



Q & A

Can not turn on the device?

- Check if the battery is installed as instructed in the manual.
- Check the battery power

Recording is not available?

- Do not insert the Micro SD card while DVR is turned on.
The card should be installed while DVR is turned off.
- Check the memory capacity left.
- Audio recording is not available once the waterproof cap for interfaces is installed.

LCD does not turn on?

- Check if the rotary switch is placed on "ON" position.
- Check the battery power.
- Set to the night vision mode in the night.

The map is not available in the PC Viewer?

- Check the internet connection.
- If the GPS information is not stored, the map is not working in the PC Viewer.
- GPS inaccessible area: Inside buildings, Underground parking lots, Complex skyscraper area, Bad weather conditions etc.,

Specification

Image Sensor	5M Pixel Color CMOS Sensor
LED Lamp	SSC P7 LED
Display	1.5" TFT LCD
GPS	SiRF Star IV High Performance GPS Chipset
Night-Vision	Auto Digital IR—Cut Shift Module (6EA 850nm IR LED)
Waterproof	IP 68 (Max 100M) with Sealing Caps fitted
E- Compass	Magnetic Sensor Type
Control Switch	Twin LED & DVR Magnetic Rotary Switch
Housing	Aircraft Aluminum 6061 T6 , Hard Anodizing Heat Treatment , Pyrex Lens
White Balance	Auto
Recording Frame Rate	1920×1080 (30fps) , 1280×720 (30fps) , 848 ×480 (60fps) , 640 × 480 (30fps)
Image Resolution	4000×3000 , 3200×2400 , 2592x1944 , 2048x1536
Voice Recording	HQ AAC INCORDER (In the Water Cannot be Recorded)
LED Lamp Life (white)	SSC P7 Provide More than 100,000 Hours of Trouble Free Life. Max 900 Lm (Visual Distance 300m)
Brightness	2-Levels of Brightness and SOS Signal
OSD and System Menu Display	Include Monitoring Viewfinder
OSD Language Display	English, Korean and other selectable options
Recording Media	TF Card, Max 32GB (Max 16Hr)
Interface	USB , MINI HDMI , TF Card slot
Battery Operable	2 x 18650 LI-ION Battery
Battery Run Time(MAX)	4.5 Hours Flashlight Only. - 3.5 Hours (Camera and Flashlight)
Size & Weight	375mm x 80mm(Max Diameter), 980g (Without Battery)